State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: SUNNE WRIGHT McPEAK
Business, Transportation and Housing Agency

Date: February 23, 2004

Attention: Michael Tritz, Chief Auditor

From: TONY V. HARRIS
Chief Deputy Director

Subject: Performance Improvement Initiative - Additional Information

Attached is additional information for the Performance Improvement Initiative from the California Department of Transportation (Department). This information attempts to follow the format submitted in the memorandum sent by the Business, Transportation and Housing Agency on February 11, 2004.

As with the Department's initial Performance Improvement Initiative document, included are submittals from the Capital Outlay Program, Maintenance and Operations, Intercity Rail and Local Assistance.

Attachment

California Department of Transportation

Mission and Vision: "Caltrans Improves Mobility Across California"

Capital Outlay Project Delivery Program - Overview

Capital Outlay Project Delivery Strategic Plan Objectives:

Performance Goal: Deliver record levels of transportation system improvements.

1) Deliver projects within programmed schedules and budgets.
   a) Establish a baseline plan of capital projects major milestones annual delivery by quarter, and monitor actual versus planned baseline milestones delivery accomplishments.
   b) Ensure programmed projects are delivered (Ready To List) as currently programmed.
2) Efficiently deliver projects through improved processes.
   a) Meet established timeframes for review of environmental documents and technical reports.

Capital Outlay Project Delivery Overview: The Department of Transportation produces Capital Outlay improvement projects for the State Highway System (SHS) and other transportation facilities. Through these projects the Department maintains and improves the SHS's condition, capacity, and safety. Projects are delivered through a variety of means, using in house staff as well as consultants. Project Delivery provides transportation improvements with an annual value of approximately $4 billion for Capital Outlay and Capital Outlay Support. Capital Outlay is the funding mechanism for construction contracts and right-of-way expenditures. Capital Outlay Support is the funding necessary to develop the project documents, permits, and other contract requirements.

The Capital Outlay Project Delivery Program consists of six functional divisions (Project Management, Environmental Analysis, Design, Engineering Services, Right of Way, and Construction). After desired improvements are planned and programmed, Project Delivery becomes responsible for the development and delivery of all capital projects on the State Highway System.

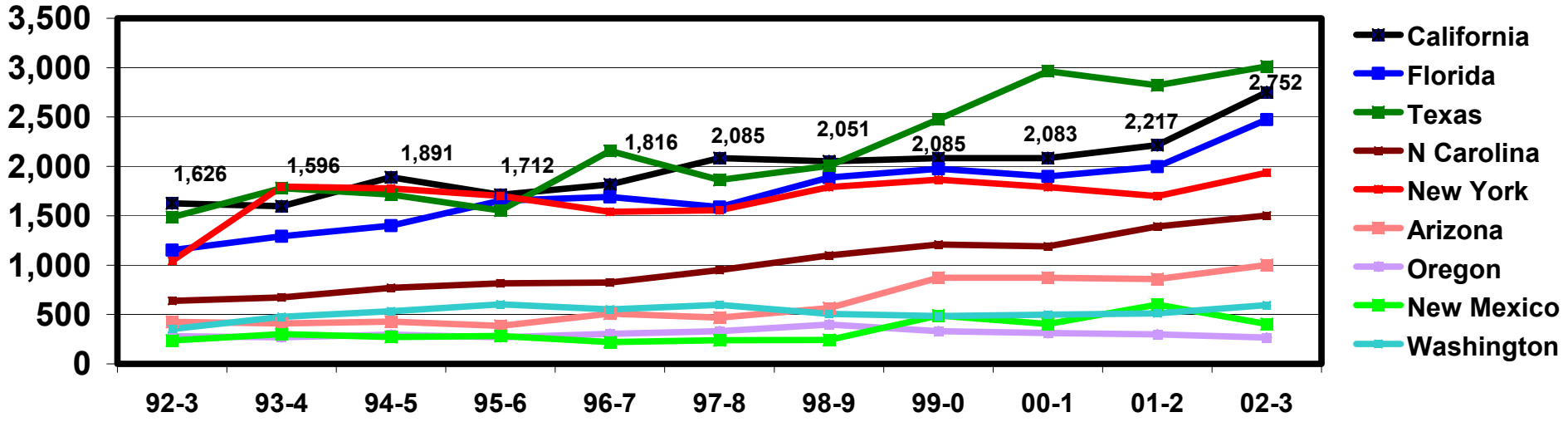
The projects and the necessary support are funded from multiple sources, Reimbursed (a broad variety of improvements funded by others), Bond (the few remaining non- toll seismic retrofit projects), TBSRA (toll bridge seismic retrofit), TCRF (project funding for the Traffic Congestion Relief Program) and the State Highway Account (state and federal funds for STIP and SHOPP projects).

(I.) Capital Outlay Project Delivery Program – Measure of Capital Outlay Expenditures

Division	Function	Outcome	Metric(s)	Source of Metric	Date Metric Established	Benchmark Organization
Project Management	Measure of Product (Capital Outlay) Delivery	Improved System Performance	- Annual Capital Outlay Expenditures - Annual Support Expenditures - % Support / Capital	Self Developed Data available from FHWA.	1988	Other State DOT's

Dollar value of all projects delivered and under construction: An indicator of project delivery is the steady growth in capital construction and right of way expenditures over time. Figure 1 shows a steady growth in capital outlay expenditures, which indicates that projects are being delivered, right of way acquired and constructed at an increasing rate.

Figure 1: Annual Capital Outlay Expenditures (in millions – not adjusted for inflation)



(I.) Capital Outlay Project Delivery Program - Measure of Capital Outlay Expenditures - Discussion

1) As indicated, the purpose of the Capital Outlay Program is to improve mobility. This is accomplished through the delivery and construction of transportation improvement projects. Approximately half of the Department's annual budget is for capital outlay expenditures (right-of-way acquisition and construction contracts) for statewide transportation improvements.
2) As owner and operator of the State Highway System (SHS) the Department is committed to delivering highway capital outlay projects to utilize funds made available from a variety of funding sources for the purpose of improving transportation facilities[1].
3) Capital expenditures are shown in Figure 1 for several states. The source of information used is from the Federal Highway Administration's (FHWA) "Annual Statistics" publications[2].
4) Primary customers are the citizens of California who use the SHS and project sponsors (Regional Planning Agencies, Local Agencies, etc.) who fund projects on the SHS. These customers benefit from a safer, smoother, and more reliable transportation system. Secondary customers are programs that benefit from constructed improvements. Maintenance program benefits from rehabilitation projects and the Traffic Operations program benefits from operational improvement projects. While not a direct customer, the economy as a whole in California benefits from the expenditure of transportation improvement funds, as well as the increased mobility these projects provide.
5) A major obstacle being encountered now is insufficient cash flow to allocate funds to construct projects that have been delivered. For the past year projects have been shelved due to lack of capital outlay funds to secure right of way and to construct projects. Specific projects do encounter obstacles and may be delayed, however project delays are offset with acceleration and advancement of other projects to replace them. It should be noted that this situation is about to change. Due to the planned staff reductions required by the current budget, the Department will soon be constrained by a lack of resources to deliver projects. Another primary obstacle to overall delivery is the lack of responsiveness by some environmental resource agencies.
6) Due to the nature of the program, the metric target is automatically created.
7) Metric: Capital Outlay expenditures.
    a. Performance Goal: Deliver record levels of transportation system improvements. Figure 1 shows on an annual basis how the Department continues to expend record levels on transportation improvements.[1]
    b. This is a Department metric to show product delivery. This helps to put delivery in perspective, show that the Department is delivering, and illustrate that the Department is effectively utilizing money made available to fund projects. This metric is loosely tied to the resources the Department requests each year for project delivery. This measure is a look back, but it can provide valuable information to look forward at the Department's project delivery resource needs.

(I.) Capital Outlay Project Delivery Program - Measure of Capital Outlay Expenditures - Discussion

c. Changes to this metric will result from revenue changes. Revenues can be enhanced through bonds, tolls, DMV fees, special programs (Prop 42), truck weight fees, gas taxes (federal & state) and other revenue sources. Revenues are also impacted through reduced fees, reduced taxes, changes to tax structure (ethanol), fuel usage, TCRF program, etc. This metric can also be changed by a lack of project delivery resources as described previously. If the Department has insufficient resources, cash builds in the SHA rather than invested in the transportation system.
d. The Departments goal would be to increase expenditures each year however, that outcome is controlled by others.
e. Expenditures have continued to rise over the last few years. However, in the long term declining expenditure rates due to reduced transportation funding are likely unless increased funding is made available. Even with current revenues, expenditures will decrease due to a lack of sufficient resources to deliver project.

[1] It should be noted that the Capital Program measures how well the funds are expended and the projects delivered while others measure the true "Outcome" of the expenditure of improvement to the SHS system. Specifically, the Maintenance, Operations, and Planning Programs measure the system performance in regards to safety, smoothness, and reliability.

[2] This publication, as well as others in the industry, do not provide a heads up comparison of State DOT performance. These publications allow the DOT's to gather and report data as they see fit. Because of the differences in how the DOT's accomplish this, a straight comparison cannot be made. Still, this data is useful in establishing trends in the industry and in identifying possible best practices.

(II.) Capital Outlay Project Delivery Program – Measure of Capital Outlay Project Delivery

Division	Function	Outcome	Metric	Source of Metric	Date Metric Established	Benchmark Organization
Project Management	Measure of Program Delivery	Timely use of funds; Commitments kept	Project Delivery (1) Percent and Number of Projects Delivered (2) Percent and Dollar Value of Projects Delivered	Self Developed	1992	None

California Transportation Commission (CTC) resolution # G–92–12 outlines the Department's performance measure for project delivery of programmed[1] capital outlay projects. The performance standard is to deliver more than 100% of the programmed dollars and at least 90% of the number of programmed projects each fiscal year. The 90% measure recognizes that some projects will not be delivered due to delays beyond control of the Department. In the event a planned project cannot be delivered, the CTC expects the Department to advance sufficient projects to offset the value of any planned projects that were not delivered.

Figure 2: No. Of Programmed STIP/SHOPP Projects Delivered: Goal - > 90% Dollars

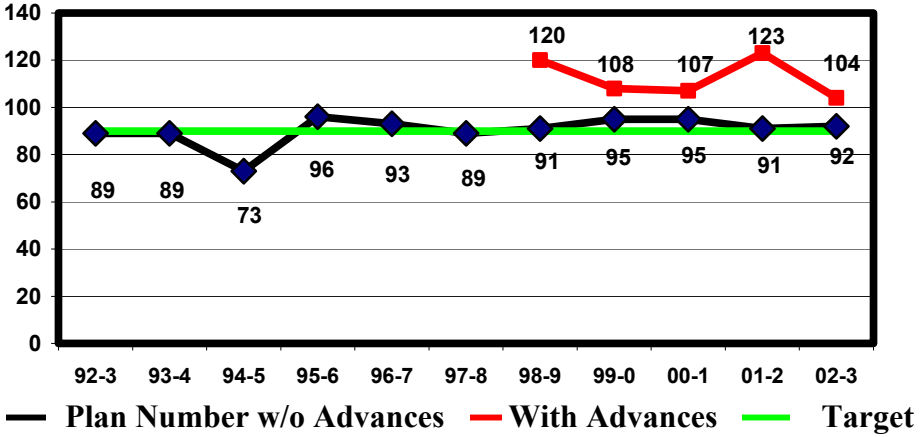
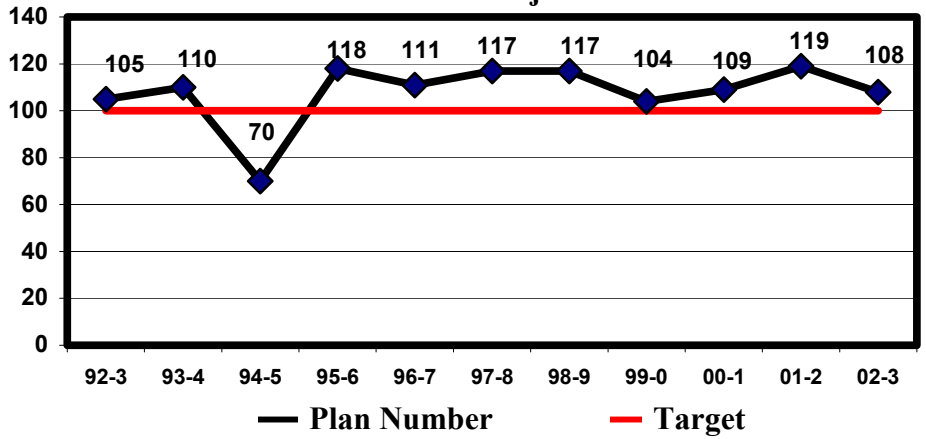


Figure 3: Value of Programmed STIP/SHOPP Projects Delivered: Goal - > 100% Projects



[1] Programmed refers to approved State Transportation Improvement Program (STIP) and State Highway Operations Protection Program (SHOPP) published in the most recent programming document.

As shown in Figure 2, in addition to exceeding 90% delivery of planned projects, the Department also delivered more than 100% of the original number of planned projects each year. As shown in Figure 3, the Department consistently exceeds delivery of more than 100% of the dollar value of planned projects each year.

(II.) Capital Outlay Project Delivery Program - Measure of Capital Outlay Project Delivery- Discussion

1) The purpose of the Capital Outlay Program is to Improve Mobility. This is accomplished through the delivery and construction of transportation improvement projects. Most of the Department's capital outlay projects are programmed in either the State Transportation Improvement Program or the State Highway Operations Protection Program. The California Transportation Commission approves both of these programs and takes action to amend these programs when needed. The Commission has established performance measures for delivery of these programs.
2) It is expected that the Department will meet its delivery commitments for these programmed projects by delivering more than ninety percent of the number of projects annually and will utilize all funds by delivering more than one hundred percent of the programmed dollar value of projects annually. In order to offset the delay of some programmed projects, the Department advances other projects to fully utilize programmed dollars. The outcomes of this measure are the timely use of all available transportation improvement funds, and insuring that the Department meets its delivery commitments. As indicated previously, other programs in the Department measure how the improvements affect the system itself.
3) In Figures 2 and 3 values are not shown for other state because past historical data not readily available. Many other states do have a metric for "Contract Lettings" or "Ready for Advertisement". Figure 3 shows utilization of funds available for projects.
4) The California Transportation Commission (CTC), Legislative Analyst Office (LAO) and Legislature are the primary customers of this measure. This measure is discussed annually by the CTC in their annual report to the Legislature, the LAO discusses this measure as part of their assessment of the Department's annual budget, and the Legislature may discuss this performance measure as part of the budget process. The citizens of California and the RTPAs are also customers of this measure. Successful delivery means projects will get constructed and the public will receive the benefits of transportation improvement projects.
5) A major obstacle being encountered now is insufficient cash flow to allocate funds to construct projects that have been delivered. For the 2003/4 fiscal year – approximately forty percent of the planned STIP projects will not be delivered due to right-of-way funds not being allocated which were needed to deliver those projects. The other sixty percent of STIP projects will be delivered, however they will not be allocated due to deficient cash flow projections. As indicated in the discussion of the previous performance metric, this situation is about to reverse itself and delivery will be resource constrained, leading to accumulation of cash in the SHA. Specific projects do encounter obstacles and may be delayed, however project delays are offset with acceleration and advancement of other projects to replace them. Many of these delays can be attributed to a lack of responsiveness by some environmental resource agencies; however, there are many other factors than can contribute to project delays.
6) Not applicable.
7) Metric: Project Delivery
   a. Number of projects shows ability to meet delivery commitment for those specific projects. Dollar value of projects shows ability to utilize funding available to fund and allocate to projects. As explained in previous discussion, delivery or projects is key in meeting the Department's mission to Improve Mobility. See Figure 3.

b. See number four above. This metric is also used internally to improve delivery. Performance over a multiyear period and delivery trends are analyzed to determine if changes need to be made to improve delivery. Mid year projections are also used to identify problem areas and to assist the Districts in overcoming delivery problems on individual projects.

(II.) Capital Outlay Project Delivery Program - Measure of Capital Outlay Project Delivery- Discussion

c. The metric can be impacted by funding availability (current situation), resource constraints (near term situation), and by delivery issues encountered on projects. An example of a delivery issue can be rejection of a coastal commission permit. When un-resolvable delivery issues occur, accelerating delivery of another project offsets the project delay.
d. Ninety percent of the number of programmed projects, one hundred percent of the dollar value of programmed projects. These measures were adopted by Commission resolution based on input from the Department.
e. Reduced program delivery in the 1994-5 fiscal year was due to funding shortfalls. In the 1994-5 fiscal year the commission developed an allocation plan that identified specific projects to be funded which were a portion of all programmed projects. This is very similar to the situation that we currently have today for the 2003-4 fiscal year. The 1994/5 funding shortfall was followed by increased revenues and decreased staffing which in turn led to a record accumulation of cash in the SHA. It appears that situation will likely repeat itself in the next few years. There can be minor fluctuations in the delivery levels due to project delays, but as the charts indicate, those fluctuations are minor.

(III.) Capital Outlay Project Delivery Program – Measure of Delivery of Major Project Milestones

Division	Function	Outcome	Metric	Source of Metric	Date Metric Established	Benchmark Organization
All six Project Delivery Divisions	Measures delivery of project milestones resourced to be completed each year.	Timely use of funds; Commitments kept Productivity	Delivery Plan - Percent of Planned Environmental Documents Delivered - Percent of Right of Way Certifications Delivered - Percent of Bid Documents Delivered (RTL) - Percent of Construction Contracts Completed	Self Developed	1999	Partially with other State DOT's.

While the CTC performance measures give a good overall representation of the Department's project delivery performance, it does not provide sufficient detail to adequately gage the Department's performance nor do they provide indicators of future delivery or of construction complete. In response to these shortcomings, the Department developed and implemented the Delivery Plan. The Delivery Plan is the annual performance measurement of four major project milestones.

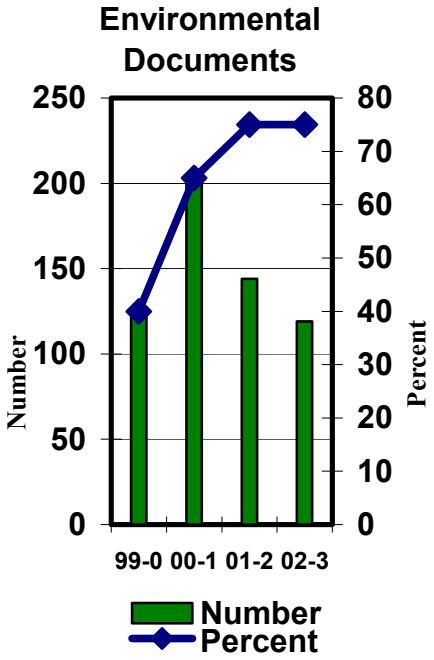


Figure 4a

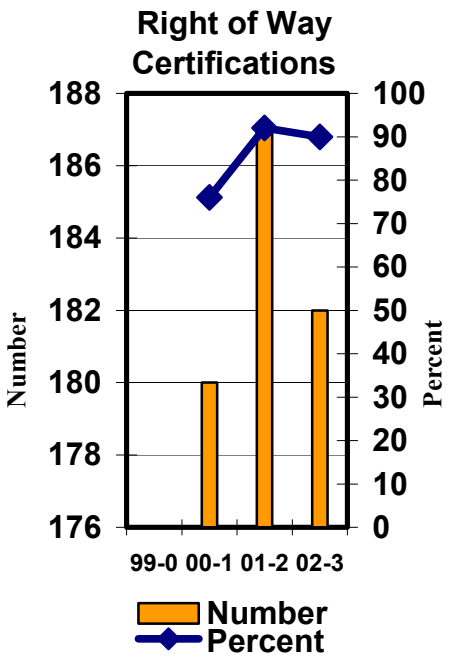


Figure 4b

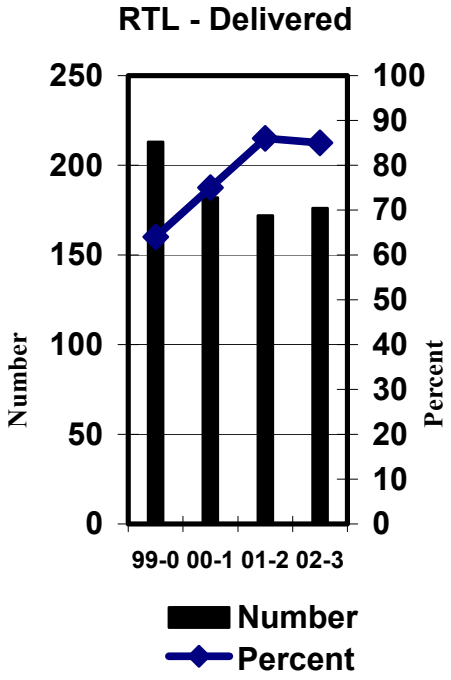


Figure 4c

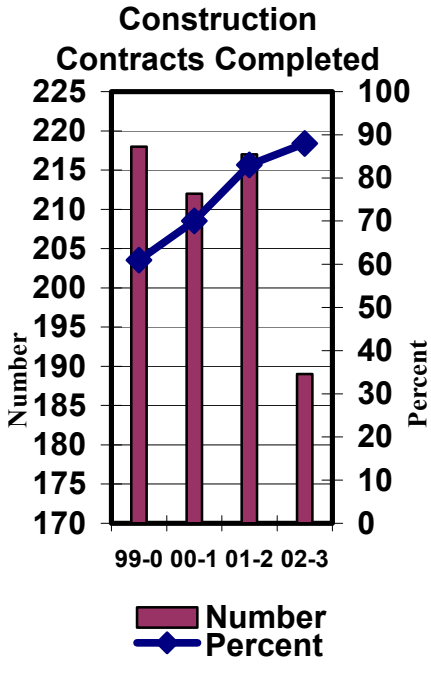


Figure 4d

(III.) Capital Outlay Project Delivery Program - Measure of Delivery of Major Project Milestones - Discussion

1) Approximately half of the Department's employees are involved in the development of capital outlay projects for statewide transportation improvements. Other measures discussed in this document relate to annual program delivery or annual expenditures. This is important for budget and financing purposes, but does not provide a measure of resources used over multiple years. Examples of multi-year resources and products for these projects are Construction Contracts Completed (delivered in prior years) and Environmental Documents (to be delivered in future years). The delivery plan makes a connection to products or major milestones for capital outlay support resources provided to construction, environmental, right-of-way and design phases of projects. Timely delivery of these milestones, and the ultimate projects that result, are critical to the Department's mission to Improve Mobility.
2) Successful delivery of major milestones shows resources provided result in completion of these products. The goals and outcome are basically the same as those described in the previous performance metric.
3) Not available. California is a leader in this area. There are very few similar measures in other states and no past historical trend found. Florida does measure right-of-way certifications and construction contracts completed. A few other states also track construction completions. No metrics were found for other states for environmental documents.
4) Figure 4 charts "a" through "d" measures are for internal management of project delivery. All six project delivery divisions and all 12 districts use this information to identify where potential issues exist and require scrutiny or action. The information can be shown internally by district, by function and by program.
5) There are many obstacles to timely project delivery, some controlled by the Department, but most are external. Primary external obstacles include, but are not limited to: lack of clear project consensus by stakeholders, lack of responsiveness by some environmental resource agencies and lack of delivery resources.
6) Not applicable.
7) Metric: Delivery plan. Percent of Environmental Documents, Right of Way Certifications, Delivered Projects and Construction Contracts Completed.
   a. Figure 4 charts "a" through "d" demonstrates delivery of major project milestones separate from program delivery (allocations). Delivery of milestones drives overall project delivery, which drives improvement of the transportation system.
   b. Department managers at the district level and program (headquarters) level utilize these management indicators. These indictors highlight potential performance problem areas in which managers may need to take corrective actions to resolve them. Long term trends are also analyzed to determine the need for overall process improvements (i.e. environmental streamlining efforts resulted from lower than desired environmental milestone delivery).
   c. Examples of issues that have been encountered: Low figures for construction contracts completed may indicate poor planning of completion dates. Low figures for environmental documents may indicate review/approval delays.

(III.) Capital Outlay Project Delivery Program - Measure of Delivery of Major Project Milestones - Discussion

d. Environmental Documents – 75%; Right of Way Certifications – 90%; Delivery RTL – 90%; Construction Contracts Completed – 90%. Measures developed based on the delivery performance required to meet the overall program needs..
e. Percentage of milestones met is on increase. For the 2003/4 fiscal year, the number of Right of Way certifications and delivered projects will decrease because sufficient right-of-way funds were not allocated. Number of milestones completed has gone down primarily due to funding (cash flow) issues. As money to fund projects has declined, the number of projects being developed has been reduced. Attrition and loss of consultant resources based on the current year budget has also impacted the Department's ability to meet delivery expectations. This situation will deteriorate further as the reduction plan is implemented.

(IV.) Capital Outlay Project Delivery – Measure of Delivery of Environmental Documents

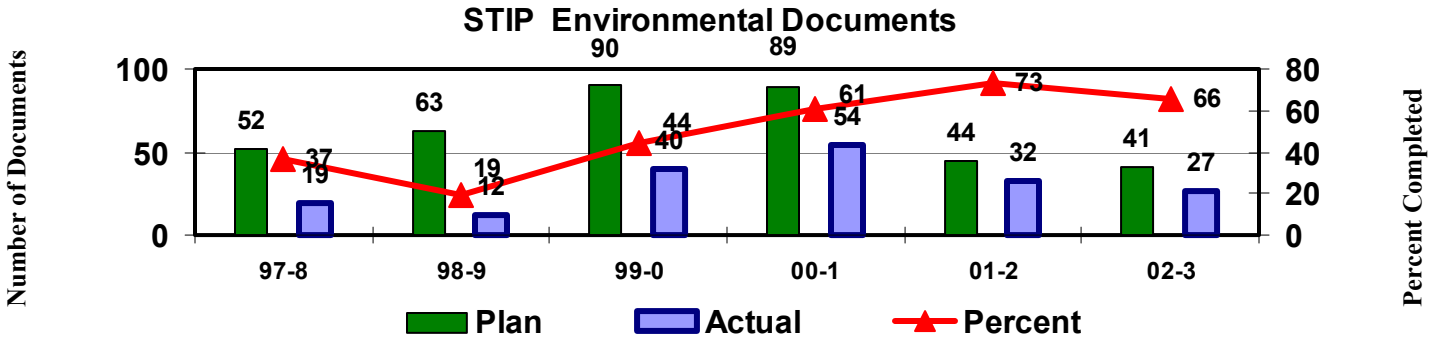
Division	Function	Outcome	Metric	Source of Metric	Date Metric Established	Benchmark Organization
Environmental Analysis	Measures process and procedures improvement.	Timely use of funds; Commitments kept Productivity	Environmental Streamlining - Streamlining Initiatives - Percent and Number of STIP Documents Delivered - Percent and Number of SHOPP Documents Delivered	Self Developed	1997	None

Production of environmental documents and acquisition of necessary environmental permits has grown significantly more complex and difficult over the last 5 – 10 years. Because these documents are key to the delivery of transportation projects, the Department has put special emphasis in this area over the last 3 to 5 years. Listed below are some of the initiatives implemented during this period, along with a graph showing the improvement in environmental document delivery as a direct result of these initiatives.

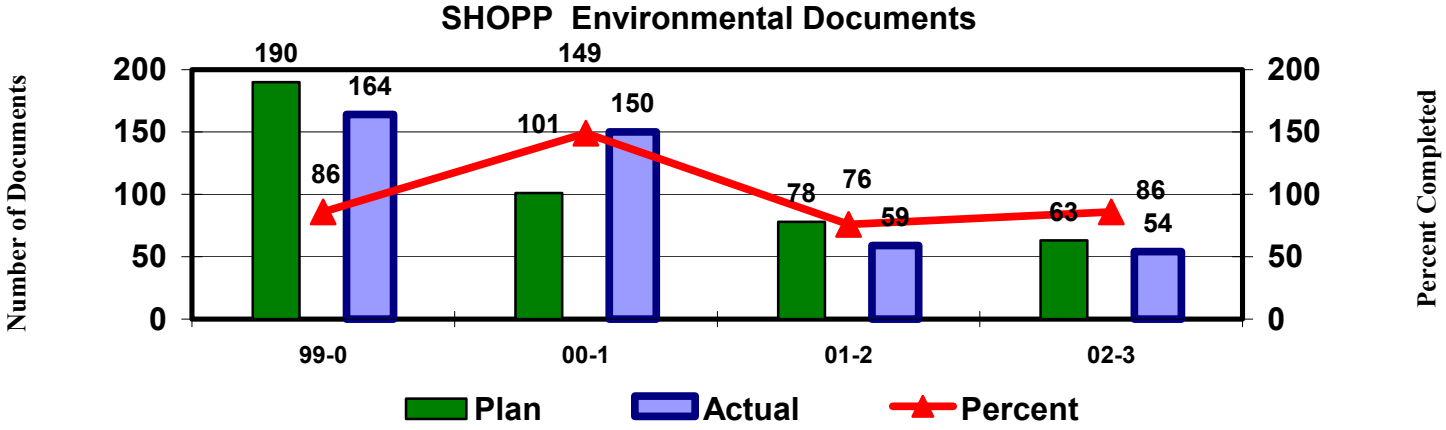
Environmental Streamlining initiatives:

- Expand programmatic categorical exclusion approval authority to the Department, with appropriate monitoring by the FHWA California Division.
- Partnering agreements among the Resources Agencies, the California Environmental Protection Agency, and the Business, Transportation, and Housing Agency. ("Tri-Agency Partnership")
- Revising a Memorandum of Understanding for NEPA/404 Integration Process with FHWA, U.S.EPA, U.S. Corps of Engineers to address issues pertaining to waters of the United States.
- Partnership Agreement with U.S.EPA (Region 9) and U.S.DOT to support cooperative and collaborative work among the three agencies during the environmental planning process.
- Environmental Program Business Process Review to identify tools and processes that would make the process more effective and efficient.
- Standardized "Streamlined" EIS format that makes the document more readable and consistent.
- Programmatic agreements for assessing impacts, determining level of mitigation, and coordinating with the resource agencies in a predetermined manner.
- Developing a system to monitor environmental analysis and document preparation to identify obstacles to achieving various milestones, with an ultimate goal of producing most EIS documents in 3.5 years.
- Section 106 Programmatic Agreement completed, which delegates more authority to the Department, resulting in considerable timesavings.
- Developed an annotated format for Initial Studies/ Environmental Assessment (the most common environmental document type), which identifies standard expectations for document content.

(IV.) Capital Outlay Project Delivery – Measure of Delivery of Environmental Documents



While we have not quite reached our 75% goal for STIP projects, the graph clearly shows significant improvement in this area.



Federal Highway Administration (FHWA) Measures - Environmental Streamlining: FHWA has adopted a goal and objective in 2003 to streamline environmental review and permitting timelines. Included in their goals are:

- Establish timeframes and meet schedules for 90% of projects with an EA or EIS by 2007.
- Decrease the median time it take to complete an EIS from 54 months to 36 months by FY 2007.
- Decrease the median time to complete an EA from approximately 18 months to 12 months by FY 2007.

(IV.) Capital Outlay Project Delivery – Measure of Delivery of Environmental Documents- Discussion

1) Environmental document milestone is probably the most important milestone for a project to ultimately move forward to construction. In order to have a sufficient number of projects ready to utilize project funds, there must be a number of projects that have already been environmentally cleared.
2) In order to continue to deliver record numbers of projects, substantial progress is needed in the delivery of environmental documents in order to be able to have these projects ready and available to fund.
3) No information is readily available from the other states. The Federal Highway Administration has completed a study on times needed to complete Environmental Impact Reports and has set some goals for reducing review times. This information is shown on the previous page.
4) In addition to customers discussed previously that benefit from delivery of projects, customers of environmental documents would also include environmental resource agencies, FHWA and environmental stakeholders.
5) Common obstacles encountered in completing environmental documents in a timely manner range from staffing issues at resource agencies to conflicting missions between other agencies and the department.
6) Environmental documents are required to comply with CEQA[2] and NEPA[3] laws and regulations.
7) Metric: Streamlining initiatives and environmental documents delivered.
    a. Successful delivery of environmental documents will lead to delivery of record numbers of projects. Streamlining initiatives provide a basis for discussion of what continuous improvement efforts are underway. These improvements should lead to improved delivery.
    b. The CTC and LAO use this information in their evaluations of the Department every year. They both recognize that low delivery numbers could signal delays to projects programmed for funding in the future.
    c. Environmental delivery can be impacted by any number of issues, some of which are within the Departments control and many that are not. Issues concerning what the Department controls are budgeted resources, staffing, consultant resources, etc. Issues beyond the Departments control are changes requested by project sponsors, resource agencies review/conditions/requirements, etc.
    d. Environmental Documents delivered – 75%. Developed on historical data with plan for improvement.
    e. Percentage of milestones met is increasing. For the 2003/4 fiscal year the number of environmental documents delivered will probably decrease because resources were not fully allocated for all STIP projects as a result of budget reductions enacted as part of the 2003/4 budget. The number of milestones completed has gone down primarily due to funding (cash flow) issues.

[2] CEQA – California Environmental Quality Act
[3] NEPA – National Environmental Protection Act

(V.) Capital Outlay Project Delivery – Measure of Capital Outlay Support Efficiency

Division	Function	Outcome	Metric	Source of Metric	Date Metric Established	Benchmark Organization
All six Project Delivery Divisions	Measures Efficiency	Productivity	Project Delivery Capital Outlay Support Efficiency / Production Indicators	Self Developed	2002	None

While the Department has a well-established track record of project delivery, the cost, efficiency and productivity of that delivery is not as well documented. Therefore, the Department has begun to look at historical trends on the "cost" of delivery. The data included below compares the hours spent on project delivery versus the overall project cost for the period of 1992-97 versus 1997-2002.

Figure 5: PROJECT DELIVERY EFFICIENCY IN HOURS PER MILLION DOLLARS OF CAPITAL

	PHASE	FY 1992-97	FY 1997-02
		HRS / Million $	HRS / Million $ (Normalized)
SHOPP	ENVIRONMENTAL	812	661
	DESIGN	1,493	828
	RW CERTIFICATION	10,519	4,361
	CONSTRUCTION	2,446	2,280
	ALL	**1,763**	**1,231**
STIP	ENVIRONMENTAL	675	545
	DESIGN	1,669	1,245
	RW CERTIFICATION	3,228	2,838
	CONSTRUCTION	2,050	2,706
	ALL	**1,921**	**1,402**

Although this data does not provide an actual "measure" of delivery efficiency or productivity, it certainly shows a "trend" of fewer hours spent to produce a given amount of project work.

This "trend" indicates about a 25% increase in efficiency/productivity during this period. It should also be noted that this increase in efficiency/productivity occurred over a period of time when the complexity of project delivery increased significantly.

This "trend" measures productivity on specific projects over multiple years. It is a measure of support cost on a project-by-project basis. This is different than the support shown on the next page, which is on an annual program wide basis.

(V.) Capital Outlay Project Delivery – Measure of Capital Outlay Support Efficiency

Figure 6: FHWA Capital Costs	FY 1992-97	FY 1997-02
	Support/Capital Percentage	Support/Capital Percentage
CALIFORNIA	28%	27%
FLORIDA	27%	29%
TEXAS	13%	17%
N CAROLINA	22%	23%
NEW YORK	12%	26%
ARIZONA	11%	8%
OREGON	18%	13%
NEW MEXICO	7%	10%
WASHINGTON	34%	37%

Although this data does not provide an actual "measure" of delivery efficiency or productivity, it certainly shows a "trend" of reduced support for capital costs.

This "trend" measures annual support costs as a percentage of annual capital costs averaged over a five-year period to apply costs over multiple years. It is a measure of support cost on an annual program-wide basis.

Looking at the information provided in Figure 6 one may wonder why there is such a large range in support costs from one State agency to the next. This gets into factors such as complexity of projects, urban areas, level of environmental issues and how project costs are accounted and reported by the various agencies. Figure 7 is a table to highlight some of the differing conditions between the states evaluated.

Figure 7	RURAL STATE HIGHWAY			URBAN STATE HIGHWAY			RURAL LANE MILES		URBAN LANE MILES		RURAL AVMT*		URBAN AVMT*	
STATE	MILES	%	RANK	MILES	%	RANK	MILES	RANK	MILES	RANK	MILES	RANK	MILES	RANK
Arizona	5,834	88%	37	817	12%	33	77,294	35	41,275	17	18,294	25	32,566	19
California	11,421	75%	14	3,780	25%	10	173,509	14	200,641	1	62,789	2	247,914	1
Florida	7,056	59%	33	4,996	41%	6	104,274	32	150,681	3	38,789	7	8,349	36
New Mexico	10,826	95%	19	588	5%	39	111,294	30	13,699	35	14,883	30	116,767	3
New York	11,008	73%	17	4,030	27%	8	146,989	21	92,419	4	37,533	9	93,269	4
North Carolina	69,189	88%	1	9,187	12%	2	159,742	18	52,559	11	45,314	5	46,226	11
Oregon	6,859	90%	34	731	10%	37	113,315	29	23,406	29	17,528	26	16,870	28
Texas	68,686	87%	2	10,660	13%	1	452,225	1	187,115	2	75,901	1	140,310	2
Washington	5,934	84%	36	1,114	16%	28	127,435	27	41,347	16	17,236	27	36,429	14

* AVMT – Annual Vehicle Miles of Travel (in millions)

(V.) Capital Outlay Project Delivery - Measure of Capital Outlay Support Efficiency – Discussion

1) Capital outlay support (engineering costs) is the resources needed to deliver capital outlay projects. Support is provided to inspect and administer the $6 billion dollars of projects currently under construction that have already been delivered. Support is provided to acquire right-of-way valued at approximately $200 million annually. Support is provided to complete design and to prepare contract plans for advertisement of over $2 billion worth of construction projects to be delivered annually. Support is also provided to prepare environmental documents and perform preliminary design work on over $7 billion dollars of projects under development that are programmed for delivery in future years in the SHOPP and STIP.
2) Support costs, as a percentage of total costs should be reduced over time.
3) Two tables shown in Figures 5 and 6 have been provided. The Figure 5 shows support costs on a project-by-project basis. Information is not available from other states for this metric. Figure 6 provides a comparison with other states on an annual program wide (averaged over a five year period) basis. Source of data is from Federal Highway Administration's (FHWA) "Annual Statistics" publications[1].
4) Customers include project sponsors and programs that provide funds needed to perform support services. For STIP projects project sponsors program the funds needed to fund support work. Also, for any given funding level, fewer dollars spent on support translate into more dollars available for actual construction.
5) None. The program is currently developing additional effectiveness and efficiency measures.
6) Not applicable.
7) Metric: Measures support costs efficiency to ensure support is provided in a cost effective and efficient manner.
    a. The Department needs to demonstrate that support services are being provided in an efficient and cost effective manner.
    b. Internal measurement used by Division of Project Management in assessing support costs.
    c. Support costs can be impacted by changes in state staff to consultant ratios and addition of project requirements (example storm water, additional studies). They can also be affected by project complexity, changing regulations (i.e. stormwater), and the increasing need to improve transportation facilities without impacting facility operations.
    d. Target would be to reduce support costs over time.
    e. Results show recent support costs are less than past support costs.

[1] These publications, as well as others in the industry, do not provide a heads up comparison of State DOT performance. These publications allow the DOT's to gather and report data as they see fit. Because of the differences in how the DOT's accomplish this, a straight comparison cannot be made. Still, this data is useful in establishing trends in the industry and in identifying possible best practices.

California Department of Transportation

Mission and Vision: "Caltrans Improves Mobility Across California"

Divisions of Maintenance & Traffic Operations

A. Describe the function and activities of the program, and how they relate to the department's primary mission:

The mission of the Division of Maintenance is to protect public safety and preserve California's highway system by maintaining and repairing the system and responding to emergencies so travelers and goods reach their destinations safely and efficiently.

The mission of the Division of Traffic Operations is to maximize traffic efficiency and safety while minimizing inconvenience and congestion on the highway system. Together these divisions facilitate the safe and efficient mobility on the State's highway system, through incident response, preservation and operations management.

B. Describe the program's goals/expected outcomes:

The Division of Maintenance prioritizes its activities in terms of safety, preservation, service and program health. Objectives are consistent with Division of Maintenance goals as follows:

- Safety- To fully maintain highway facilities and appurtenances and to provide for maximum safe use.
- Preservation – To preserve investment in highway infrastructure assets so that condition is maximized for the most efficient preservation effort.
- Service – To preserve investment in service infrastructure so that customer satisfaction is maximized for the most efficient level of effort.
- Program Health – To assure supporting services within the Maintenance Program are nurtured to enable program continuity and improvements.

Annual performance plans are developed for different performance matrices and associated outcomes (Level of Service (LOS), IRI, etc.) and are adjusted based on resources available.

Division of Traffic Operations activities can be categorized under two areas: System Management and Safety.

- System Management, which seek to reduce congestion and achieve the efficient and orderly movement of people and goods, include operation of Traffic Management Centers (TMC) and their associated Traffic Management Systems (TMS), traveler information, Freeway Service Patrol (FSP), and the use of high occupancy vehicle lanes and carpool lanes.

- Activities performed under Safety can be subcategorized into a Reactive Safety component and a Proactive Safety component. Proactive Safety activities including highway signing, traffic signals and other traffic control devices, encroachment permits, and transportation permits. Reactive Safety activities are managed under the federally

mandated Highway Safety Improvement Program (HSIP), and primarily include the investigation and analysis of traffic accident data at nearly 7000 locations for possible safety improvements each year. The Safety Program also includes the accident database and the state highway inventory.

C. Identify the budget [$ and PYs] for the program and compare to other states, including TX, FL, AZ, OR, NM, and WA. [Professional or policy organizations may have other states' information.]:

The following 2003-2004 budget information for California was taken from the Governor's 2004-2005 budget document. Information from other states was taken from their Department of Transportation Internet sites. PY information was not readily available for other states. Program and activities may not be comparable among states due to different organizational structures. Oregon and Washington enact 2-year budgets.

	Maintenance	Traffic Operations	Lane Miles	Notes
California	$764.5m / 5,452 PYs	$150.1m / 1,466 PYs		FY 3-4
Texas	$988.7m			FY ended 8/31/02
Arizona	$94.9m			FY 2-3
Oregon	$304m	$36m		FY 3-5
Washington	$328m	Inc'l in Maintenance		FY 3-5
Florida	$415.8m	$31.4m		FY 3-4

D. Identify the program's primary and [if applicable] secondary customers, and explain how customer satisfaction is measured:

The Maintenance Division's primary customers are the traveling public. There are a diverse group of secondary customers including adjacent property owners, environmental groups, the construction industry, local governments, the California Transportation Commission, Regional Transportation Planning Agencies (RTPAs), League of Cities, Association of Counties, and other Departments (California Highway Patrol, Office of Emergency Services).

Customer satisfaction is measured by periodic customer surveys. The surveys cover the full range of maintenance and operation management activities such as pavement smoothness, levels of service, traveler safety, etc. Additionally, web-based maintenance service requests serve as an indicator of local maintenance issues requiring attention.

The primary customer of the Traffic Operations Safety Program is the motoring public. They are the key beneficiaries of improved safety.

E. Describe the obstacles to achieving the program's goals/expected outcomes:

Funding and staffing are obstacles to achieving the Division of Maintenance's goals and objectives/outcomes. As the need for State highway system maintenance increases; due to aging

infrastructure, increasing traffic volumes, and increasing inventories, the costs to operate and maintain the system increases. Staff effort and expenditures are shifted from service activities to safety and preservation activities, thereby creating a backlog of needs. Instead of extending the life cycle of the infrastructure assets with proper preventative maintenance, expensive rehabilitation becomes the only option. A stable workforce would allow us to address routine maintenance instead of relying on reactive maintenance. Current hiring restrictions inhibit the ability to meet not only daily maintenance needs but the ability to respond in times of critical need, i.e.: winter operations, incident response, etc.

Traffic safety involves three interactive elements: the driver, the vehicle, and the roadway. The Department's efforts to improve roadway safety focus primarily on making engineering improvements to the roadway itself. The objective of the Department's Highway Safety Improvement Program (HSIP) is to reduce the number, severity, and the associated costs of collisions on Californian highways through roadway improvement projects.

Obstacles to achieving the Traffic Operation Program's goals and expected outcomes relate to the two other interactive elements of highway safety: the driver and the vehicle.

Driver behavior issues include: driving under the influence of alcohol/drugs, impaired driving, curbing aggressive driving, licensing of young drivers, ensuring drivers are fully licensed and competent, sustaining proficiency in older drivers, keeping drivers alert, increasing driver safety awareness, increasing seatbelt usage and improving airbag awareness.

Vehicle issues focus mainly on safety enhancement in vehicles: air bags, seatbelts, vehicle roll over potential, vehicle crash worthiness from various angles, driver and occupant safety, child safety, reliability issues, etc.

F. If an activity interferes with the department's primary mission, explain how it does so and why the activity is performed:

The Maintenance Program has been required through various federal clean water mandates to perform regular Stormwater activities related to ensuring runoff from the State highway system is free from contaminants. Although the Program received resources to perform this workload, these resources were inadequate requiring the Program to redirect workforce from higher priority preservation activities. Additionally, local priorities focused on Service activities (Graffiti removal, Litter removal, Landscape) divert workforce from higher priority preservation activities. Traffic Operations has no activities which interfere with the Department's mission.

G.A. Pavement Smoothness (International Ride Index – IRI) Metric

Explain how the metric demonstrates the department's success in accomplishing its mission, how the metric is linked to program outcome.

See response to G.B. (below).

Explain who uses the metric and how the metric results are used to make program decisions and/or changes necessary to better accomplish the department's mission.

See response to G.B. (below).

Explain how changes in the activities/outputs measured by the metric are entirely, or at least primarily, responsible for changes in the outcome, and/or identify other factors affecting the outcome.

See response to G.B. (below).

Identify the target for the metric and explain how the target was developed.

The target for IRI was developed by AASHTO for pavement distress. An IRI of 200 is very poor or uncomfortable to a motorist, while an IRI of 60 is excellent.

Explain the cause[s] of any fluctuation in the metric results.

See response to G.B. (below).

G.B. Pavement Condition (Number of distressed lane miles) Metric

Explain how the metric demonstrates the department's success in accomplishing its mission, how the metric is linked to program outcome.

Maintenance's mission is to preserve the highway system by maintaining and repairing the system so travelers and goods reach their destination safely and efficiently. Our mission is accomplished by reducing the number of distressed lane miles of pavement. The Department obtains funding for the highway system based on the pavement condition. Structural damage (major or minor) and ride quality (road smoothness) are the major factors looked at in determining pavement condition. There is a direct correlation between dollars spent on pavement preservation and distressed lane miles retired. The more distressed pavement, the more funding is needed to make repairs.

Explain who uses the metric and how the metric results are used to make program decisions and/or changes necessary to better accomplish the department's mission.

Distressed lane miles is the performance metric reported to the California Transportation Commission, the Department of Finance, Regional Transportation Agencies, and Counties as required by Section 164.6 of the Streets and Highway Code. The pavement condition survey is used by the Department to determine where construction projects are needed and to develop efficient strategies to address the problem.

Explain how changes in the activities/outputs measured by the metric are entirely, or at least primarily, responsible for changes in the outcome, and/or identify other factors affecting the outcome.

Of the number of distressed lane miles increases, lane miles of poor ride quality increases and more projects are needed to correct the problems. This in turn means more funding is needed to reduce the distressed lane miles and meet the Department's goals.

Identify the target for the metric and explain how the target was developed.

In 1995 the Department made a presentation to the California Transportation Commission (CTC) on funding levels for the State Highway Operation and Protection Program (SHOPP). It was pointed out that the distressed pavement of the aging State Highway System was increasing at a rate exceeding the funding availability. The Department offered four investment options to the CTC, which illustrated different funding levels and the number of distressed lane miles that would be retired with each option. The CTC made the decision to use the option which would reduce the distressed lane miles to 5500 by the year 2008. Funding levels have not been maintained to reach this goal.

Explain the cause[s] of any fluctuation in the metric results.

Decreases in distressed lane miles are directly proportional to funds allocated to preserve the roads. If the Department does not get adequate funding to preserve the roads, the distressed lane miles increase.

G.C. Maintenance Levels of Service (LOS) Metric

Explain how the metric demonstrates the department's success in accomplishing its mission, how the metric is linked to program outcome.

Level of Service (LOS) is a statewide program that measures the efforts of highway maintenance in the aspects of travelway, slopes/drainage, roadside and traffic guidance. The higher the LOS the better we are at achieving the mission of "Caltrans improves mobility across California." It is linked with our desired outcome (thresholds) enabling the department to address safety and preservation of the system and also provide service to the public.

Explain who uses the metric and how the metric results are used to make program decisions and/or changes necessary to better accomplish the department's mission.

Annual performance plans are developed by the Deputy District Directors after an evaluation is made on how previous resources spent affected the metric. Future goals are set and activities are adjusted to achieve our primary mission.

Explain how changes in the activities/outputs measured by the metric are entirely, or at least primarily, responsible for changes in the outcome, and/or identify other factors affecting the outcome.

The recent resource reduction and redirection to mandated and safety and preservation related activities translated into lower LOS in service related activities.

Identify the target for the metric and explain how the target was developed.

The LOS targets are set by:

- Resources available for activities is based on the priorities of safety, preservation, service and program health
- Expenditure, staffing and LOS data from prior reviews (historical)
- Practicality of achieving desirable target (priorities)

Explain the cause[s] of any fluctuation in the metric results.

The fluctuation of the LOS results may be attributed to user demand on system, age of infrastructure, rate of deterioration, increases in inventory, environment, climate, regulations and availability of resources (PY, dollars and materials). Also, Maintenance work windows are decreased due to increased traffic volume.

G. D. Structural Deficient/Functionally Obsolete (SD/FO) Metric

Explain how the metric demonstrates the department's success in accomplishing its mission, how the metric is linked to program outcome.

This metric is used by FHWA to monitor the effectiveness of the expenditure of Highway Bridge Rehabilitation and Replacement Program (HBRRP) funds. Bridges that are SD/FO are considered federally deficient bridges and are eligible for HBRRP funds. HBRRP funds are allocated to the States using a formula that is based on the number of the SD/FO bridges. It is assumed that a decrease in SD/FO bridges is a result of good expenditure of HBRRP funds.

Explain who uses the metric and how the metric results are used to make program decisions and/or changes necessary to better accomplish the department's mission.

The SD/FO is utilized by FHWA to monitor the use of |HBRRP funds. The Department monitors the SD/FO bridges and uses it to help scope rehabilitation projects that use Federal Funds. Bridges that use Federal Funds must fix all attributes of a bridge that qualify it for SD/FO status.

Explain how changes in the activities/outputs measured by the metric are entirely, or at least primarily, responsible for changes in the outcome, and/or identify other factors affecting the outcome.

The scope of bridge rehabilitation projects are greatly influenced by the SD/FO status of the bridge. If a rehabilitation project is initiated on an SD/FO bridge, that bridge will be fixed to ensure it is no longer considered SD/FO when the project is completed.

Identify the target for the metric and explain how the target was developed.

This is a nationally recognized metric developed from the National Bridge Inventory data set. This metric is monitored by FHWA and is used to determine apportionment of HBRRP funds. Over time, FHWA expects a decrease in the number of SD/FO bridges.

Explain the cause[s] of any fluctuation in the metric results.

Fluctuations have occurred due to changes in data collection specifications.

G.E. Bridge Health Index Metric

Explain how the metric demonstrates the department's success in accomplishing its mission, how the metric is linked to program outcome.

This metric monitors the condition of our Bridge network. If needed repairs are not made, the condition of a bridge will deteriorate, thus lowering the BHI. By monitoring the BHI, the Department can evaluate the effectiveness of its preservation activities on the structural quality of the bridge inventory.

Explain who uses the metric and how the metric results are used to make program decisions and/or changes necessary to better accomplish the department's mission.

The BHI is utilized by managers and supervisors as a tool to determine the structural quality of the bridge inventory and its present worth. Because the BHI is used to represent a bridge's current worth, the benefit of repair activities can be quantified by evaluating the pre-BHI and post-BHI of the repair.

Explain how changes in the activities/outputs measured by the metric are entirely, or at least primarily, responsible for changes in the outcome, and/or identify other factors affecting the outcome.

Bridge repair activities should increase BHI.

Identify the target for the metric and explain how the target was developed.

The BHI is a relatively new metric. The target is based on the desire to not allow the condition of our bridge inventory to deteriorate. Our target is to maintain our network BHI between 94 and 96 which preserves the structural quality of the system.

Explain the cause[s] of any fluctuation in the metric results.

Causes in the fluctuation of the BHI are a direct result of bridge condition information that is collected during the federally mandated National Bridge Inspection (NBI) requirements. Due the relative youth of this metric, some minor fluctuations have been the result of minor derivation changes. As this metric becomes more utilized throughout the country, it is anticipated that future changes for national standardization may introduce some fluctuations.

G.F. Fatal and Injury Rates (F+I) Metric

Explain how the metric demonstrates the department's success in accomplishing its mission, how the metric is linked to program outcome.

The Safety Goal is to achieve the best safety record in the nation. Roadway fatalities are adjusted by the number of million vehicle miles of travel to provide a basis for comparison from year to year, as well as, for comparison with other states. California shows a general decreasing trend in the fatality rate from 1993 – 2001. Also, for the states shown in the metric, California along with Washington, have the lowest fatality rate trends.

Explain who uses the metric and how the metric results are used to make program decisions and/or changes necessary to better accomplish the department's mission.

Collision data are used to develop the metric. Collision data is what drives the funding and programming of safety projects under the Department's Highway Safety Improvement Program. The State highway system is continuously monitored to determine high collision concentration locations for safety investigations. The investigations look for ways of reducing collision severity or frequency at the identified locations. Many of these recommended improvements are completed through projects funded by the HSIP. Funding and programming of projects change even as the locations identified for safety investigation change.

Explain how changes in the activities/outputs measured by the metric are entirely, or at least primarily, responsible for changes in the outcome, and/or identify other factors affecting the outcome.

The Department's Highway Safety Improvement Program evaluates, on an annual basis, the effectiveness of improvement projects through before-and-after safety collision studies to determine reductions in fatal and injury collisions.

Identify the target for the metric and explain how the target was developed.

The target metric of achieving the best safety record in the nation was an agency management decision.

Explain the cause[s] of any fluctuation in the metric results.

The fluctuations in the metric results would be related to the randomness of collision data (collisions do not occur consistently), and the driver behavior and vehicle safety issues described above.

G.G. Employee Safety (Illness and Injury Rate-IIR) Metric

Explain how the metric demonstrates the department's success in accomplishing its mission, how the metric is linked to program outcome.

The metric illustrates that due to proactive employee safety and health efforts, the personal injury rate has decreased over the last five years, thereby helping to achieve one of the Department's goals which is to achieve the best safety record in the nation.

Explain who uses the metric and how the metric results are used to make program decisions and/or changes necessary to better accomplish the department's mission.

Annual performance plans are developed by the Deputy District Directors after an evaluation is made on how previous resources spent affected the metric. Future goals are set and activities are adjusted to achieve primary mission.

Explain how changes in the activities/outputs measured by the metric are entirely, or at least primarily, responsible for changes in the outcome, and/or identify other factors affecting the outcome.

Although there has been an increased focus on safety training, an increase in the availability and use of safety equipment and tools, changes in the IIR cannot be directly linked back to our proactive efforts.

Identify the target for the metric and explain how the target was developed.

The target for the IIR was determined by utilizing national averages for similar entities. Ultimately, the goal would be zero injuries, but as previously stated; the department's goal is to have the best safety record of any DOT in the nation.

Explain the cause[s] of any fluctuation in the metric results.

Causes in the fluctuation of the IIR could be caused by any one of a number of factors including driver speeds through work zones, average daily travel (ADT), environmental factors (such as weather), and economics. Reductions in the proactive safety effort based upon reduction in funding to promote those efforts have a negative effect on the outcome.

California Department of Transportation

Mission and Vision: "Caltrans Improves Mobility Across California"

Rail Program

In support of the Department of Transportation's vision to "Improve Mobility Across California," the Department's Division of Rail manages and coordinates intercity passenger rail services that help to:

- Provide relief to highway and airway congestion;
- Provide a rail transportation alternative to other travel modes;
- Improve air quality, conserve fuel, and contribute to efficient and environmentally superior land use.

1. **Program Function and Activities in Furtherance of Department Goals**.

The Program's efforts, by specific goal include:

Flexibility – Make transit a more practical travel option by increased daily roundtrip train service on all three intercity routes, expand intermodal transfer programs to create seamless travel opportunities, and achieve on-time performance of intercity trains through performance based payments to host railroads. Continue successful strategic corridor marketing programs and target underperforming segments and city pairs. Expand marketing partnerships with other agencies, the private sector and transit providers.

Performance – Provide increased reliability, capacity and reduced running times by completing prioritized transportation improvement projects on time and on budget. Conduct environmental reviews in a timely fashion and explore acquisition of new or modified rail equipment. Involve railroads in capital project selection to achieve increased capacity, reduced running times, and improved reliability.

Productivity – Efficiency of the system is enhanced through regular onboard train monitoring and station inspections and installation of ticket vending machines on the Surfliner Corridor. Pursue Amtrak performance incentives to make passenger satisfaction a high priority. Produce corridor business plans to guide short term operating and a ten year rail plan for long term investment decisions.

Reliability – Reduce traveler delays by elimination of capacity bottlenecks and construct new maintenance facilities to eliminate equipment failures. Protect the state's rail equipment investment through ongoing regular equipment overhaul program.

Safety – Achieve a stellar safety record by devoting federal and state resources to eliminate hazards or separate rail and highways at grade crossings on local streets, roads and state routes.

B. Program Goals and Expected Outcomes

Pacific Surfliner Corridor – Our goals on this corridor include increasing ridership by 50% and revenues by 87%, additional daily frequencies, reduced running times and improved on time performance. Real-time information about train arrivals will be available at all stations along the route.

San Joaquin Corridor - Our goals on this corridor include increased ridership by 50% and revenues by 61%, additional daily frequencies, reduced running times and improved on time performance.

Capital Corridor - Our goals on this corridor include increasing ridership by 108% and revenues by 132%, additional daily frequencies, reduced running times and improved on time performance. Real-time information about train arrivals will be available at all stations along the route.

Please see the below discussion of the Program's performance metrics for additional detail.

C. Program Budget Compared to Other States Supporting Amtrak Intercity Rail Service.

State	Operating Dollars Contracted with Amtrak for latest Fiscal Year	No. of Staff Working on Intercity Rail Passenger Program#
California	$73,138,000	16
Illinois	12,000,000	3
Washington	11,757,000	7.5
Missouri	6,147,000	2
Wisconsin	5,060,000	2
Oregon	4,500,000	1.5
# Numbers in this column represent operations staff only. Equipment rehabilitation or capital project staff have not been included.		

D. Primary Customers and Measurement of Customer Satisfaction

Primary Customers – Primary customers on the three routes are leisure travelers and to a lesser extent, those traveling for business. Leisure travelers include families, seniors and single adults.

Customer satisfaction – Customer satisfaction is measured monthly by Amtrak using names drawn from their passenger database. The goal is 100 completed surveys per route per month covering such issues as on time performance, equipment cleanliness, onboard crew service, and food cost and quality.

E. Obstacles to Achieving the Program's Goals/Expected Outcomes

Inadequate Funding for Capital Projects

- The Program's ability to expand service (both additional frequencies and new routes) is limited by the lack of funding from the State Transportation Improvement Program (STIP) for capital improvements needed to provide the additional track capacity and new equipment required for service expansion.

- State Highway Funds from the STIP cannot be used to fund equipment acquisition—pursuant to Article XIX of the State Constitution. Other sources, such as the Public Transportation Account (PTA), must be found for such equipment needs. This has been done through bond, PTA, and General Fund dollars in prior years.

- Freight Railroad Capacity and Reliability

(a) Greatly increased freight traffic on the main lines also used for State supported rail passenger service has brought the issues of track capacity and service reliability to a critical level. The railroads are unwilling to add any additional State supported rail passenger lines without the State funding the projects the railroads determine to be necessary to provide the additional track capacity and reliability required by new passenger services.

F. Activities Interfering with Mission

The intercity rail program fully supports and encompasses all of the elements of the California Department of Transportation's mission, vision and goals.

G. DISCUSSION OF PERFORMANCE METRICS

Annual Ridership

1. Annual ridership shows the growth in the number of passengers riding State-supported intercity rail services. The growth in ridership shows the increasing contribution these services are making to provide relief for highway and air congestion, provide alternatives to other modes, and to improve air quality and conserve fuel.

2. The Department and Amtrak use this information, in combination with service levels, to determine when additional equipment and frequencies should be added to a route. Ridership levels also measure the success of marketing programs and on-board service enhancements.

3. Increases in annual ridership on intercity rail passenger services reduce the number of people otherwise traveling by car and air, thereby providing congestion relief to these modes.

4. The Department's Rail Ridership/Revenue Forcasting Model estimates that implementing the improvements in the 10-year State Rail Plan would increase rail ridership from; 2,179,000 in FY 2002-03 to 3,319,000 in FY 2013-14 on the Pacific Surfliner Route, 783,000 to 1,204,000 on the San Joaquin Route, and 1,172,000 to 2,352,000 on the Capitol Corridor.

5. Fluctuations in ridership results will vary depending on level and quality of service being provided, on-time performance, reliability, and competitive highway congestion.

Weekday Round Trip Frequencies

1. Weekday round trip frequencies show the growth in the amount of train service provided on State-supported intercity rail routes. This service increase directly results in ridership increases due to the additional travel options provided.

2. The Department and Amtrak use this information, in combination with rideship levels to determine when additional frequencies should be added. Addition of new frequencies is subject to availability of funding and equipment, as well as railroad agreement to operate more service.

3. When an additional round trip is added, the capacity added to the route allows additional passengers to be served.

4. The 10-year State Rail Plan shows an increase in round trip frequencies from 11 in FY 2002-03 to 14 in FY 2013-14 on the Pacific Surfliner Route, 6 to 8 on the San Joaquin Route, and 12 to 18 on the Capitol Corridor.

5. This metric changes only as train service is added.

Farebox Ratio – (The ratio of revenue to expense)

1. The farebox ratio demonstrates changes in the cost effectiveness of State-supported intercity passenger rail services.

2. The Department and Amtrak use this information to determine the best way to price and market the service to increase this ratio and at the same time increase ridership, while controlling costs.

3. Increases in the farebox ratio are directly related to an increase in cost effectiveness.

4. The 10-year State Rail Plan shows the expected change in farebox ratio from 53.1% in FY 2002-03 to 61.2% in FY 2013-14 on the Pacific Surfliner Route, from 43.3% to 42.4% on the San Joaquin Route, and 37.7% to 46.9% on the Capitol Corridor.

5. The farebox ratio will often decrease when a train is added to a route, as operating costs go up immediately. However, when ridership increases to offset the increase in operating costs, the ratio will increase as well.

Passenger Miles Per Train Mile
(A measure of the average load on a train over its entire route.)

1. Passenger miles per train mile (PM/TM) demonstrate the level of passenger use of a route over its entire length.

2. The Department and Amtrak use (PM/TM) to operate the service so that ridership can be increased on segments of the route that are under utilized, thereby raising the overall PM/TM.

3. Increases in PM/TM demonstrate a more intensive use of the train route, thereby increasing its efficiency.

4. The 10-year State Rail Plan shows the expected change in PM/TM from 121 in FY 2002-03 to 131 in FY 2013-14 on the Pacific Surfliner Route, 91 to 103 on the San Joaquin Route, and 93 to 100 on the Capitol Corridor.

5. PM/TM changes as the number of frequencies are increased and as ridership goes up or down. Changes in ridership are caused by factors such as economic conditions, improvement in service levels and competitive costs of automobile travel.

California Department of Transportation

Mission and Vision: "Caltrans Improves Mobility Across California"

Division of Local Assistance (DLA)

Function & activities:
DLA's activities are required by federal/state laws and support the State's transportation systems. DLA administers nearly $1 billion annually to over 600 cities, counties, and regional agencies.

How related to Department's mission:
DLA activities provide quality assurance, and fiscal accountability.

- Increases safety by funding transportation projects like Safe Routes to School and Hazard Elimination Safety,
- improves performance by delivering regional and statewide transportation system improvements,
- expands flexibility by funding approximately $300 million in transit related projects annually and making transit a more practical option and,
- increases productivity by improving efficiency of the transportation system through capital improvements.

Goals/expected outcomes:
Goals are Delivering Transportation Improvement Projects, Ensuring an Efficient and Effective Program and Providing Support that includes continuous improvement. The outcome of the goals is improved mobility to Californians. Outcomes include initiation of approximately 700 construction projects each year that meet the transportation needs of the Department and nearly 600 regional and local agencies statewide. Every year DLA obligates nearly $1 billion in federal funds for approximately 1,200 for preliminary engineering and construction of transportation projects.

Budget [$ and PYs] for the program:
$1.2 billion and 259 PYs

Compare to other states including TX, FL, AZ, OR, NM, and WA:

Comparison – Summary

State	Program Size, $ Millions	Staff, PYs	Comment
California	$ 1,200	259	
Washington	$ 240	50*	*Excludes other functional units in Wash DOT (e.g. Design, Construction, Environmental) that support local project delivery
Florida	$ 67	N.A.	Staff cost/PYs is not available
Arizona	$ 70	N.A.	Staff cost/PYs is not available
New Mexico	$25	3	Recent change reduced Staff responsibilities to agreements only. Due to issue with oversight, the DOT is looking to expand local assistance role, staff, and expertise.
Oregon	$ 75	60	
Texas	$0	N.A.	Texas DOT is responsible for all paved county and state highway roadways. Cities are responsible for funding city street improvements.

Primary customers:
Local and regional agencies, cities and counties.

How customer satisfaction is measured:
Customer surveys. Recent surveys indicated positive ratings (85% Approval) from cities, counties, MPOs, and RTPAs.

Obstacles to achieving goals/expected outcomes:
Obstacles include:

- Environmental procedures and regulatory requirements
- Budget (staff & resource) reductions
- Availability of local matching funds (e.g. Seismic Retrofit)
- Funding cuts/elimination (e.g. Environmental, Enhancement, & Mitigation)
- Computer system improvements have been delayed that would improve the Department's and Local Agency's ability to track and deliver projects
- Department standards are in metric units while local agencies deliver projects in English units.
- Advance construction of local projects doubles workload of some standard activities
- New unresourced work (e.g. CWA, FSTIP, ITIP TE)

If an activity interferes with the department's primary mission, explain how it does so and why the activity is performed:
DLA's activities are required by federal/state laws and augment the Department's primary goal of supporting the state's transportation systems.

To many local agencies it appears that the Department's activities related to compliance with environmental regulations interfere with the delivery of projects. These activities are performed to assure that project funding is not jeopardized due to lack of federal and state code compliance.

Metric:
Percentage of federal funds obligated

How metric demonstrates the department's success in accomplishing its mission:
Obligation of federal funds is a major milestone that leads to completion of transportation projects that improves mobility across California, increase safety, improve performance, expand flexibility, and increase productivity.

How metric is linked to program outcome:
Obligating funds encumbers those funds for capital phases (design, acquisition, or construction) to enable transportation improvement implementation.

Who uses metric:
DLA Division Chief, FHWA, Regions, MPOs, Cities, Counties, CTC (e.g. AB1012 reprogramming)

How the metric results are used to make program decisions and/or changes necessary to better accomplish the department's mission:
Data indicates a correlation of the metric with the availability of sufficient resources to provide adequate customer service. When resource levels were unavailable to meet customer demand (Federal Fiscal Year 1998), the metric of project delivery fell below 100% to a 10-year low of 43%. When this occurred, an emphasis was made to streamline and prioritize division activities, and some resources were increased. This was followed by four consecutive years of meeting or exceeding the 100% OA delivery metric.

How changes in the activities/outputs measured by the metric are entirely, or at least primarily, responsible for changes in the outcome, and/or identify other factors affecting the outcome:
It appears a decade of historic data shows the metric changes primarily in response to DLA levels of service. A reduction of resources or availability of necessary customer service will most likely drop the metric below 100%.

Target for the metric:
Obligating 100% of funds available

Explain how the target was developed:
Obligation authority (OA) needs to be used in the federal fiscal year provided. OA not used in the FFY is lost to the state. The goal is to prevent loss of federal funds to the state requiring that all OA be used each year. In addition spending 100% of obligational authority helps bring in more federal dollars to California during the annual August redistribution.

Explain the cause[s] of any fluctuation in the metric results:
The primary cause of fluctuation is DLA resource availability. Other factors include the State Highway Account balance and cash flow, changes in local/regional agency budgets, AB 1012 and changes in knowledge level of local agency staff due to staff turnover.